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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT PAPER NUMBER

1713

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/069,981 | L'ALLORET, FLORENCE | |
| | Examiner | Art Unit | |
| | Dr. Kelechi C. Egwim | 1713 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-69 is/are pending in the application.
- 4a) Of the above claim(s) 27,31,34,35,37,38,46-48,50-53,56-60 and 62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25,26,28-30,32,33,36,39-45,49,54,55,61 and 63-69 is/are rejected.
- 7) ☒ Claim(s) 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of (meth)acrylic acid as the water-soluble monomer and N-substituted acrylamide derivatives with an LCST as the LCST units in Paper No. 081604 is acknowledged. It is noted that applicant has elected a species of water-soluble monomers distinct from both of the species named in the written restriction.

The traversal is on the ground(s) that "[t]he PCT administrative instructions in the MPEP, Annex B, Part 149 define Markush practice and state that the alternatives defined in a single claim shall meet the technical relationship requirements of PCT Rule 13.2 if they are of a similar nature ... The Office provides no support for its conclusion that the alternative chemical compounds in the claims are so dissimilar that they fail to meet the requirements of PCT Rule 13.2 for Markush practice." Applicants submit that criteria (A) and (B)(1) are met by the claims and that they are of similar in nature as that term is defined in Annex B. This is not found persuasive because the alternative chemical compounds are not homologs or sufficiently similar nature, as would be readily recognized by one in the art [i.e., polyethers vs. polyacrylamides or N-vinyl lactams vs. styrene sulfonate vs. (meth)acrylic acid].

"Applicants further traverse the Restriction Requirement on the ground that the Office has not applied the same standard of unity of invention as the International Preliminary Examination Authority. The Authority did not take the position that unity of

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invention was lacking in the international application and examined all claims together.”

This is not found persuasive because the restriction was based on the guidelines of PCT Rule 13.2 and PCT Administrative Instructions, Annex B, Part 1(f)(I)(B)(2), as stated in the written restriction. Because the international authority in the first stages of examination failed to indicate a lack of unity in the claims does not negative the present restriction requirement since a finding of lack of unity can be indicated at any stage of prosecution.

Applicants also traverse on the grounds that “a search of all the claims would not impose a serious burden on the Office. In fact, the International Searching Authority has searched all of the claims together. More significantly, the Examiner has already searched the claims as shown by the Office Action mailed to the Applicants on January 22, 2004.” This is not found persuasive since a different and separate search would be required for each embodiment represented by each species or combination of species. Contrary to applicant’s statements, the claims restricted between (claims 50, 53, 54, and 56) were added 05/20/2004, months after the Office Action was mailed on 1/22/2004.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 50, 53 and 56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim.

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3. Claims 27, 31, 34, 35, 37, 38 and 46-48, 51, 52, 57-60 and 62 are still withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim.

4. The elected claims 25, 26, 28-30, 32, 33, 36, 39-45, 49, 54, 55, 61 and 63-69 are examined below.

Claim Objections

5. Claim 39 is objected to because of the following informalities: A space is missing between the "%" symbol and the word "relative" in the second line of the claim. The period is also missing from the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if applicant is claiming a block polymer, a graft polymer, either or both.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 25, 26, 28, 30, 32, 33, 40-45, 49, 55 and 65-67 are rejected under 35 U.S.C. 102(b) as being anticipated by Merchant Jr. et al., for reasons stated in the first Office Action.

10. Claims 25, 26, 28, 29, 33, 40-45, 49, 55 and 65-67 are rejected under 35 U.S.C. 102(b) as being anticipated by Koerner et al., for reasons stated in the first Office Action.

11. Claims 25, 26, 28-30, 33, 40-45, 49, 55 and 65-67 are rejected under 35 U.S.C. 102(b) as being anticipated by Yabuta et al., for reasons stated in the first Office Action.

12. Claims 25, 26, 28, 29, 32, 33, 39-45, 49, 55 and 63-67 are rejected under 35 U.S.C. 102(b) as being anticipated by Fogel et al., for reasons stated in the first Office Action.

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13. Claims 25, 26, 28-30, 32, 33, 39-45, 49, 54, 55, 63 and 65-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Maroy et al. (EP 583814 or EP 629649)

In the claims, Maroy et al. teach aqueous dispersions as additives to be dispersed in an oily material, said aqueous phase comprising about 3% of a polymer having a water-soluble unit and a unit with a component resulting in an LCST (lower critical solution temperature or cloud point), wherein the water-soluble or LCST units may comprise polymethacrylate or poly-N-isopropylacrylamide. The claims in Maroy et al. include polymers, wherein said water-soluble polymer units having molecular weights from 150,000 to 500,000 are grafted with 0.17 to 21% LCST units having molecular weights from 600 to 5000.

Thus, the requirements for rejection 35 U.S.C. 102(b) have been met.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 36, 61 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maroy et al. (EP 583814 or EP 629649)

While Maroy et al., above, do not specify the recited proportions (mole percent or molar weight) of the LCST units relative to the graft polymer, one of ordinary skill in the art would have found it prima facie obvious to determine a workable or even optimum

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range of rheological properties for the graft polymers (see page 3, lines 8-10 of '814 and/or col. 4, lines 49-59 of '649). "[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980); "[W]here the general conditions of a claim are disclosed in the art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Response to Arguments

16. Applicant's arguments filed 05/20/2004 have been considered but they are not fully persuasive. While some of the rejections have been withdrawn (i.e., Breneman et al., Yamamoto et al. and Ezaki.), the claims are still unpatentable over the prior art.

17. While applicants argues that the "compounds in Merchant are not a polymer of water-soluble units and LCST units", in col. 6, lines 41-49, Merchant et al. teach maleic anhydride (water soluble units) grafted on to polyethers (LCST units).

18. While applicants argues that the water soluble emulsifiers/polymers of Koemer et al. "are not a polymer of water-soluble units and LCST units" and that the polymers in the Examples "have only LCST-like units", these polymers (see top of col. 8) still meet the requirements of the rejected claims of water-soluble polymer units with LCST units as defined/exemplified in the present specification.

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19. While applicants argues that "the alkoxylate ester [of Forgel et al.] does not contain both LCST and water-soluble units", the polyether units represent LCST units and the ethoxylated polyester units represent water-soluble units.

20. Finally, While applicants argues that none of [the polymer of Yabuta et al.] contain water-soluble units and units", on page 11, lines 32-33, Yabuta et al. teach block copolymers of ethylene glycol and propylene glycol, each of which is independently representative of water-soluble units or LCST units.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (571) 272-1099. The examiner can normally be reached on M-T (7:30-6:00).

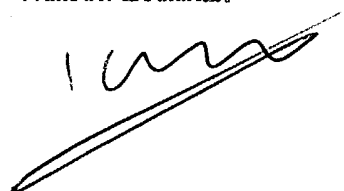
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCE

KELECHI C. EGWIM PH.D.
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be 'KCE', is written over a diagonal line that extends from the bottom left towards the top right.